
Solufions Hints Booklet
Mini-Cube, Maxi-Challenge! ..... 2
Meet Your Mini-Cube ..... 3
Twisting Hints ..... 4
Mini-Cube Sequences ..... 7
Solving RUBIK'S Mini-Cube .....  9
RUBIK'S - The World's Best Puzzles .....  11

## Mini-Cube, Maxi-Challenge!

RUBIK'S Mini-Cube is the pocket-sized version of the best-selling, original RUBIK'S Cube. While not having as many different combinations as its big brother, the Mini-Cube can prove just as perplexing!

Find out how fascinating this not-so-little challenge can be. Mix up its colors with a few twists. Now match up the cubes until each side is a solid color again. Try to solve the puzzle logically, but think ahead. Your success will depend on how well you can visualize future sequences.

It's not as simple as you may think. With hundreds of combinations, RUBIK'S Mini-Cube is truly a portable puzzle challenge!

## Twisting Hints

The 6 colors of the Mini-Cube are paired so that the same colors are always opposite each other when the Mini-Cube is solved. For example, BLUE is always opposite WHITE, RED is always opposite ORANGE, and GREEN is always opposite YELLOW.

Opposite colors never appear on the same cube piece. For example, no cube piece will have both BLUE and WHITE in its color scheme. It helps to remember which colors are opposites when solving the Mini-Cube.

Complete the top face first. This is the easiest way to solve the Mini-Cube. With the right twists, you can then complete the bottom face without disturbing the top face.


## Meet Your Mini-Cube

## RUBIK'S Mini-Cube has 6 faces. Each one is a different solid color when the Mini-Cube is solved.

The Mini-Cube is made of 8 smaller cube pieces. All of these have 3 colors and are corner cubes.

Each face can be turned independently. Try it. (Doing this mixes up the cube pieces.)


You can now use different sequences of turns to solve the Mini-Cube. Take the challenge and try it on your own. If you're stumped, read the rest of this booklet for helpful hints.

## Iwisting Hints

There are two kinds of turns: quarter twists and half twists. A quarter twist turns a face $90^{\circ}$. A half twist reverses a face $180^{\circ}$.


Whenever you twist a cube piece out of position, perform the opposite move if you want to twist it back into position.

## Twisting Hints

Think in mirror images. For example, two quartertwists of two touching faces turn an upside-down cube piece right side up.

First
Quarter Twist

Second
Quarter Twist

Cube Piece in Place

Try to solve the puzzle logically. Play with the Mini-Cube and experiment with different sequences of twists. Find out what they do!

The diagrams below show the bottom face.
(That is, the view you would have if you tilt the whole mini-cube away from you.)
Diagonal Swapper*
Swap two diagonally opposite cube pieces. The other two cube pieces remain in their original places.


Front $\Rightarrow$; Left $\sqrt{ }$; Bottom $\Rightarrow$;
Left $\uparrow$; Bottom ↔; Front ↔; Bottom ↔
Shunter*
er-clockwise. The fourth cube remains in its original place.


Back $\stackrel{\rightharpoonup}{ }$; Left $\sqrt{ }$; Bottom $\Rightarrow$; Left $\uparrow$;
Back $\Rightarrow$; Left $\sqrt{ }$; Bottom $\triangleleft$; Left $\widehat{\diamond}$

## Shifter

Flip three cube pieces to align their colors correctly, while keeping them in their same location.


Back $\hookleftarrow$; Bottom $\Rightarrow$; Back $\Rightarrow$; Bottom $\Rightarrow$; Back $\stackrel{\diamond}{ }$ Bottom $\Rightarrow$; Bottom $\Rightarrow$; Back $\Rightarrow$; Bottom $\Rightarrow$; Bottom $\Rightarrow$;
*Note that you are attempting to reposition cube piece locations, not colors. The orientation of color faces may change as you complete the sequence.

## Mini-Cube Sequences

The next page offers specific sequences of moves to reposition cube locations or color orientations. For each sequence, the Mini-Cube's sides are labeled as shown.


Hold RUBIK'S Mini-Cube so the side you want to affect is the Bottom Face. (The cube pieces in the Top Face will return to their original positions at the end of the sequence.) Select a sequence and do the moves in order. The arrow symbols used to guide these moves indicate the turning directions. For each indicated face (Front, Right, Back, etc.) move one fourth turn in the direction of the arrow.

$$
\diamond \quad \Rightarrow \quad \text { ŋ }
$$

Hint: When working the Front or Back panels, it may help to think of a right arrow as clockwise; a left arrow as count-er-clockwise.

## Solving RUBIX'S Mini-Cube

Once you start twisting, it's easy to mix up the Mini-Cube's colors. Not to worry-the Mini-Cube can be set right from any disarranged combination. The following steps will help you solve the puzzle.

1. Select any cube piece as your starting corner. This cube piece is automatically in the correct position.
2. Turn the Mini-Cube so that the selected cube piece is in the top face.

3. Find a second cube piece that's a side-by-side match and twist it into place.


## Solving RUBIX'S Mini-Cube

4. Finish the top face by twisting the third and fourth cubes, in turn, into place. To do that, move the completed pieces out of the way, twist the target piece into position, and then restore the other pieces to their places.
5. With the right combination of sequences, you should now be able to complete the bottom face.

6. Don't get discouraged. There's always a way to win with RUBIK'S Mini-Cube!

SPECIAL HINT: Since all the cube pieces in RUBIK'S Mini-Cube are corners, solving the puzzle is the same as completing the corners on the original RUBIK'S Cube. If you can already solve RUBIK's Cube, you're ahead of the game. If you have yet to tackle RUBIK'S Cube, learning to solve the Mini-Cube will help you solve the Original challenge!


RUBIK'S Magic - The Amazing, Folding Puzzle! Multi-hinged, Plexiglas panels will amaze you with their folding action. Flip, fold and roll the ringpatterned panels to connect the rings and solve the puzzle. Keep up the fun by creating fascinating figures and shapes. A mystifying, mesmerizing challenge!

RUBIK'S Triamid - The Pyramid of Puzzling Fun! A 3D teaser, this colorful puzzle offers hours of fun. Ten colored crystals and four connecting cubes pop apart and back together again to make multiple patterns but only a single solution. A creative, geometric challenge!

## RUBIK'S Transformable Snake -

## The Twistable Puzzle of Shapes!

Hundreds of shapes take form with this twistable puzzle challenge. Solutions range from existing shapes and figures to your own creations.

RUBIK'S Mini-Cube is just one of a series of exciting puzzles designed to challenge the mind and capture your imagination. With amazing movement of color and pieces, each puzzle offers an intricate challenge that is hard to put down. And just in case it has you stumped, each puzzle comes with a Solution Hints Booklet to help you master the challenge.

Look for these other popular RUBIK'S puzzles. . .
RUBIK'S Cube - The Ultimate Brain Teaser! The best selling puzzle in history continues to fascinate young and old alike. The unique turning action and simple color concept make RUBIK'S Cube an addictive challenge that's impossible to put down!

